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BORNEO PERIOPHTHALMUS.

Travelling on the main branch of the delta of the Rejang River, northwest coast of Borneo, half way between the mouth of the river and the island of Sibü, which is at the beginning of the delta, July 17, 1912, at ten o'clock A. M., we reached the village of "Billitong" where we tied up to let the tide go down, which it did like a race-horse, while we slept. I purchased five cents worth of sugar at a Chinese store here and got some children to catch me nine or ten mudfishes or *Periophthalmus* at one cent each.

The falling tide had exposed perhaps 60 feet of mud-flat at the edge of the river. At the shoreward part of the flat among logs and sticks there were many *Periophthalmus*. Some were on the logs, others on the mud, others more or less hidden in the mud or pools of water left by the tide. When pursued they would run over the surface of the mud, sometimes sinking in so as to impede their progress. The fishes were very agile and slippery and the boys, floundering around in the mud, had great difficulty in catching them in their hands. The fishes seemed to have no definite idea of seeking safety in the river.

D. D. STREETER,
Brooklyn, N. Y.

[Mr. Streeter has presented to the American Museum of Natural History ten small gobioid fishes

obtained at this time bearing his field numbers 1159 to 1168. Six of these are *Periophthalmus* (*Periophthalmodon*) *schlosseri*, two *Boleophthalmus* *boddaerti*, and two *Apocryptes* *borneensis*. Of the first named species one about two inches long has the spinous dorsal wanting; in two of the same size it is about XV; in one about two and a half inches long XV, with the first spinous ray noticeably produced; in two about three and a half inches XIII and XVI, the first spinous ray filamentous a distance equal to two-thirds of the head or more. The *Boleophthalmus* have about seven narrow oblique imperfect dark bands on the body, best defined posteriorly and dorsally, and conspicuous pale bluish spots on the body and dorsal fins.—*Ed.*]

FISH AS OWL FOOD.

On March 28, 1915, three horned owls (*Bubo virginianus virginianus*) were hatched near East Patchogue, N. Y. Two of the young survived and I observed them until their flight. Their chief food was rabbits and yellow perch (*Perca flavescens*), with an occasional mouse and gray squirrel. The perch were spawning in a neighboring pond, and large schools of the fish in a sluggish state were collected in shallow water along the banks where the old owls could readily capture them. Great quantities of the scales in the nest, with an occasional fin, together with the strong fishy odor of the nest, left no doubt as to the identity of the fish.

FRANK OVERTON,
Patchogue, N. Y.

AN EXTENSION OF THE RECORDED RANGE OF THREE SPECIES OF FISHS IN NEW ENG- LAND WATERS.

Scoliodon tærrae-novae (Richardson). Of the range of this species, Garman, in *The Plagiostomia*

(Memoirs Museum Comparative Zoology, Vol. XXXVI, 1913, p 115) says: "Labrador to Brazil." Kendall, in Fauna of New England, List of Pisces (Occasional Papers Boston Soc. Nat. Hist., Vol. VII, 1908) and Sumner, Osburn and Cole, in a Biological Survey of the waters of Woods Hole and vicinity, Sec. III,—A Catalogue of Marine Fauna (Bull. Bur. Fish., Vol. XXXI, Part II, 1913) do not list this species. The species appears to be not uncommon at Woods Hole. Several examples were taken at this place during the summer of 1915, and an example is in the museum collection of the United States Fisheries Laboratory.

Tarpon atlanticus (Cuvier & Valenciennes). Although this species strays as far north as the southern coast of Cape Cod, Mass., being taken at South Dartmouth nearly every year, and occasionally in the vicinity of Woods Hole, the writer knows of no record for more northern points. On July 25, 1915, a tarpon about 5½ feet in length was taken at Provincetown, Mass.

Harengula sardina Poey. Of the range of this species, Jordan & Evermann, in Fishes of North and Middle America (Bull. 47, U. S. N. M., 1896, p. 430) say: "West Indian fauna; abundant; north to Key West." In the collections of the United States Fisheries Marine Biological Laboratory at Woods Hole are several examples of this species about 3 inches in length which, according to the label, were taken at Woods Hole, Mass., October 10, 1886.

LEWIS RADCLIFFE,
U. S. Bureau of Fisheries.

OCCURRENCE OF THE CROAKER IN NEW YORK HARBOR.

During the past season the Croaker (*Micropogon undulatus*) was taken much more plentifully than in most years in New York Harbor.

Writing of this species in *Fishes of North Carolina*, Smith says: "While it is occasionally taken as far north as Massachusetts, it is not ordinarily numerous north of Chesapeake Bay." In *Fishes within Fifty Miles of New York City*, 1913, the writer listed it as "Rare September." It appears that the information at his command at the time was imperfect and that the Croaker occurs in New York Harbor with sufficient regularity to be known to local anglers, and to give the name of "Croaker Grounds" to Flynn's Knoll a couple of miles towards Staten Island from Sandy Hook. At times they are caught at Huguenot, about two miles off shore at Can Buoy No. 3.

According to Messrs. Andrew Johnstone and P. McCabe the fish occurred this year in much greater numbers than usual, so that four men in four hours' fishing from one boat took as many as 120 individuals. According to the same gentlemen the Croaker was present in late July, August and a part of September, 1915; they were taken at the bottom with shedder-crab and white-worm bait, also with parts of Spots (*Leiostomus*), pieces of Weakfish and clams. They ran from 1½ to 4 lbs. in weight and 12 to 16 inches in length, or about the same size as "school" Weakfish, and resembled Weakfish in habits, taking the hook in the same vigorous manner; so that some of the less well-informed fishermen did not distinguish them from Weakfish.

J. T. NICHOLS,
New York, N. Y.

AQUATIC HABITS OF THE BOX TURTLE

The Box Turtle (*Cistudo carolina*) of the middle section of Long Island has a habit of partly burying itself in the moist sand or mud along the edges of ponds on hot days. Specimens are frequently seen swimming in the water, or resting in the shallows with only the head protruding above the surface. When alarmed, the turtles often leave the land

and enter the water voluntarily. They usually swim beneath the surface, but come up readily to breathe and to take observations. They seem to be familiar with the water, and in their ease and rapidity of swimming they compare favorably with the pond turtle (*Chrysemys picta*).

On July 31, 1910, I took a photograph of nine box turtles in a group in the edge of a pond at Middle Island, where they had lain for hours. On August 15, 1915, I photographed one at the same pond nearly submerged in the water at the end of a log, and four others were in sight partly buried in the mud. I have never failed to find the turtles in that pond in midsummer whenever I have looked for them.

The amphibious nature of the Long Island box turtle is so well known to the native inhabitants that records of the fact seem commonplace. But a note in the September COPEIA, and statements in many standard natural histories, render it worth while to record the aquatic habits of the species.

FRANK OVERTON,
Patchogue, N. Y.

A NOTE ON TWO INTERESTING NEW JERSEY AMPHIBIANS.

For several summers past trips to Lakehurst, N. J., in search of the Sphagnum Frog, *Rana virgatipes* Cope, and Anderson's Hyla, *Hyla andersoni* Baird, have afforded some pleasant outings for my brother, F. K. Barbour, and myself. We have usually left our home at Rumson, N. J., in a machine, and reached Lakehurst in something less than two hours. The afternoons we have usually spent in wandering about the sphagnum bogs and along the cold spring branches which run into the lake, searching for the sphagnum frogs, which we have found at times in considerable numbers. Our observations have con-

firmed those of Davis and of other observers who have recorded their shy ways and strictly aquatic habits. I think our familiarity with *Rana gryllio*, the big frog found swimming among the "bonnets" in some of the Florida lakes, has made this frog's relationship to the New Jersey sphagnum frog seem doubly striking, for their coloration in life is astonishingly similar, and in fact one seems to be but a miniature representative of the other. At dusk we have usually taken our supper, and then waited for darkness to come on and for the Hylas to begin to sing, we have had good luck taking Hylas by the following method: One of us with an electric flashlight would start for the nearest singing Hyla, while the other usually waited some distance away. As soon as the Hyla stopped singing, the person who was not trying to approach would imitate the call of the frog, and this would start it singing again vigorously, and while it was singing the collector bearing the light would approach as quickly as possible, standing still as soon as the singing ceased. This process was kept up until finally the light flashed on the vibrating white throat of the singing Hyla, and its capture then became a perfectly simple matter, as they stared stupidly at the brilliant light.

Up to this year I have known nothing regarding the breeding habits or the time of egg-laying of these Hylas, but have assumed that it was in May, as Davis reported them singing very plentifully at that time. This year, however, we did not get down to Lakehurst until the 8th of July, when we found the Hylas singing in goodly numbers in the white cedars about the lake. After capturing a number of singing males (I had never taken a female before), my light flashed by the merest chance upon a pair of Hylas sitting well up in a pine tree, in embrace. This, and another taken in a similar situation, were the only females secured, although we took several males from the low oak scrub about a small fresh water pool in the pine

barrens. All of our catch was placed in a large-mouthed jar and brought home to Rumson alive. The next morning a number of gelatinous egg masses were found in the bottom of the jar. Since they were pretty well smashed up from the struggles which the Hylas made trying to escape, it was impossible to distinguish whether the egg masses were laid in a characteristic form. We were both much surprised to find these eggs, as we had not supposed that this Hyla laid so late in the year; yet we had always wondered why such a large number of individuals kept on singing so vigorously until at least the 20th of July. I might add that the singing begins with dark, though an occasional voice may be heard upon a lowery afternoon, and the greatest concert takes place before ten o'clock. At about this time the number of singing individuals is noticeably less.

THOMAS BARBOUR,
Cambridge, Mass.

AN UNUSUALLY LARGE PINE SNAKE, FROM NEW JERSEY.

The Brooklyn Museum has received recently as a gift from Mr. R. P. Dow, the skin of a Pine Snake, *Pityophis melanoleucus*, Daudin which on account of its unusually large size deserves to be placed on record. The snake was killed several years ago, on the estate of the late J. Turner Brakeley, Lakaway Plantation, Hornerstown, N. J., and at the time of capture was said to have measured seven feet, four inches. Actual measurement shows a total length of six feet and nine inches, but it is possible that on account of mutilation in the killing, part of the skin was rendered useless, for the head and neck, for a length of eight inches, have been preserved separately.

Together with the skin the Museum has received also an egg, intact and in perfect preservation, which is said to have been removed from the intestinal tract

of the reptile. The egg, undoubtedly, is that of a Ruffed Grouse.

GEORGE P. ENGELHARDT,
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